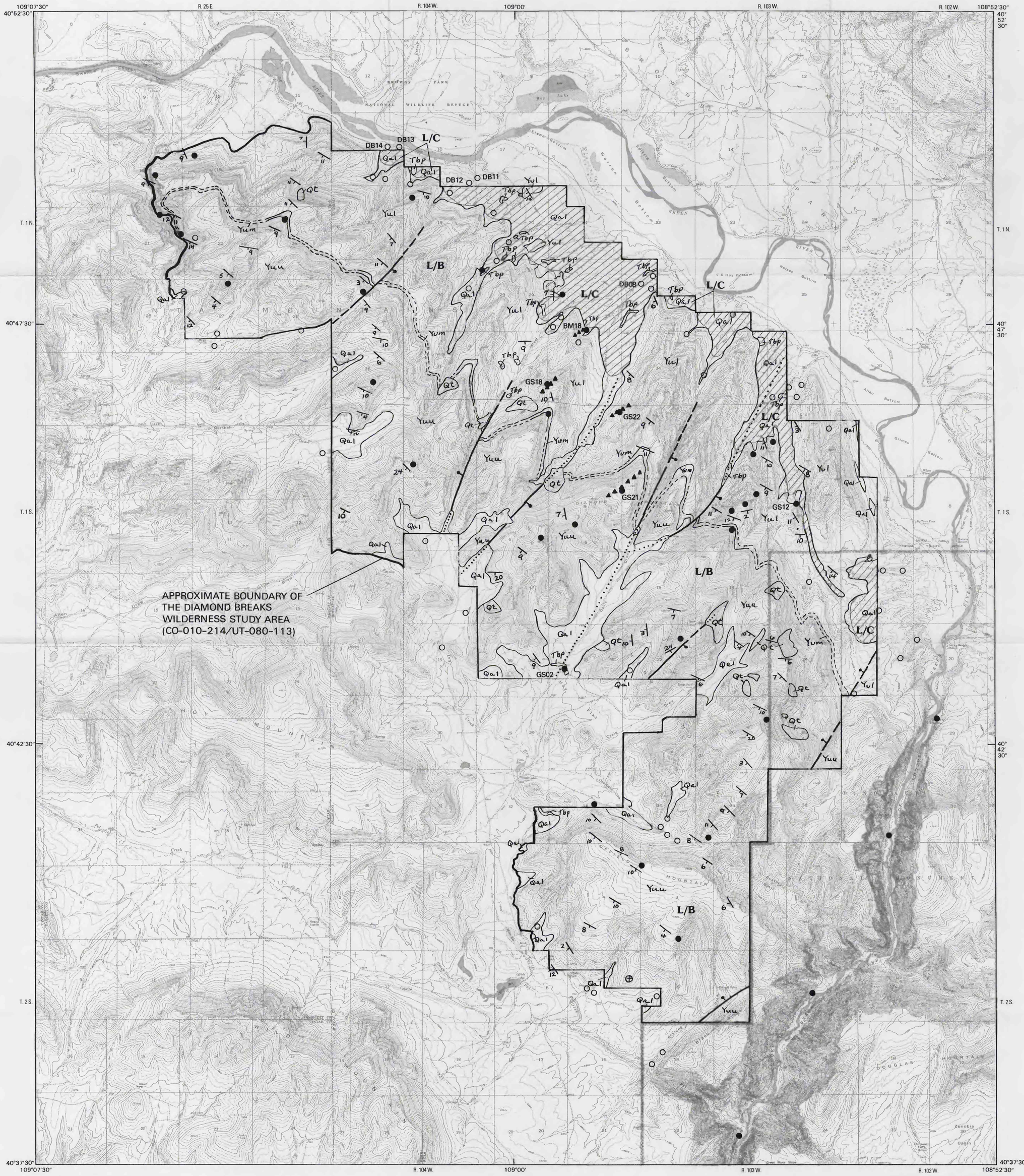
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

BULLETIN 1714-B
PLATE 1



Base from U.S. Geological Survey, Canyon of Lodore North, 1952, Hoy Mountain, 1967, Lodore School, 1954, and Swallow Canyon, 1952

Geology mapped by J.J. Connor and J.W. Whipple, 1986

SCALE 1:50 000

1 ½ 0 1 2 3 MILES

1 .5 0 1 2 3 KILOMETERS

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

EXPLANATION OF MINERAL RESOURCE POTENTIAL

[Entire wilderness study area has low mineral resource potential for copper, lead, zinc, and all other metals except as noted below, and for oil and gas, with certainty level B; unknown mineral resource potential for barite and commercial-grade silica; and no mineral resource potential for coal, manganese, phosphate, clay and shale, limestone, and gypsum]

L/B — **Geologic terrane having low mineral potential with certainty level B for gold in breccia zones**

L/C — **Geologic terrane having low mineral potential with certainty level C for gold, uranium, and tuff (pumicite)**

CORRELATION OF MAP UNITS

Qal, Qt		QUATERNARY
Unconformity		
Tbp	Miocene, Oligocene	TERTIARY
Unconformity		
Yuu, Yum, Yul	Middle Proterozoic	PROTEROZOIC

LIST OF MAP UNITS

- Qal — **Alluvium, colluvium, and slope wash (Quaternary)**
- Qt — **Talus (Quaternary)**
- Tbp — **Browns Park Formation (Miocene and upper Oligocene)**
- Yuu — **Upper part of Uinta Mountain Group (Middle Proterozoic)**
- Yum — **Middle part of Uinta Mountain Group (Middle Proterozoic)**
- Yul — **Lower part of Uinta Mountain Group (Middle Proterozoic)**
- ——— **Geologic contact (dashed where approximately located)**
- ——— **Fault, bar and ball on downthrown side (dashed where approximately located, dotted where concealed)**
- ▲▲▲ **Breccia zone**
- 10 **Strike and dip of bedding**
- ⊕ **Horizontal bedding**
- ○ **Locality of stream sediment or stream sediment concentrate sample. DB11—numbered sample referred to in text**
- ● **Locality of rock sample. Numbered samples referred to in text, GS—USGS sample, BM—USBM sample**

LEVEL OF RESOURCE POTENTIAL ↑ / LEVEL OF CERTAINTY →	A	B	C	D
U/A		H/B HIGH POTENTIAL	H/C HIGH POTENTIAL	H/D HIGH POTENTIAL
UNKNOWN POTENTIAL		M/B MODERATE POTENTIAL	M/C MODERATE POTENTIAL	M/D MODERATE POTENTIAL
		L/B LOW POTENTIAL	L/C LOW POTENTIAL	L/D LOW POTENTIAL
				N/D NO POTENTIAL

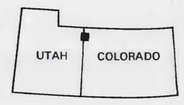
LEVELS OF RESOURCE POTENTIAL

- **H** High mineral resource potential
- **M** Moderate mineral resource potential
- **L** Low mineral resource potential
- **U** Unknown mineral resource potential
- **N** No known mineral resource potential

LEVELS OF CERTAINTY

- **A** Available data not adequate
- **B** Data indicate geologic environment and suggest level of resource potential
- **C** Data indicate geologic environment, give good indication of level of resource potential, but do not establish activity of resource-forming processes
- **D** Data clearly define geologic environment and level of resource potential and indicate activity of resource-forming processes in all or part of the area

Diagram showing relationships between levels of mineral resource potential and levels of certainty. Shading shows levels that apply to this study area



MINERAL RESOURCE POTENTIAL AND GEOLOGIC MAP OF THE DIAMOND BREAKS WILDERNESS STUDY AREA, MOFFAT COUNTY, COLORADO, AND DAGGETT COUNTY, UTAH